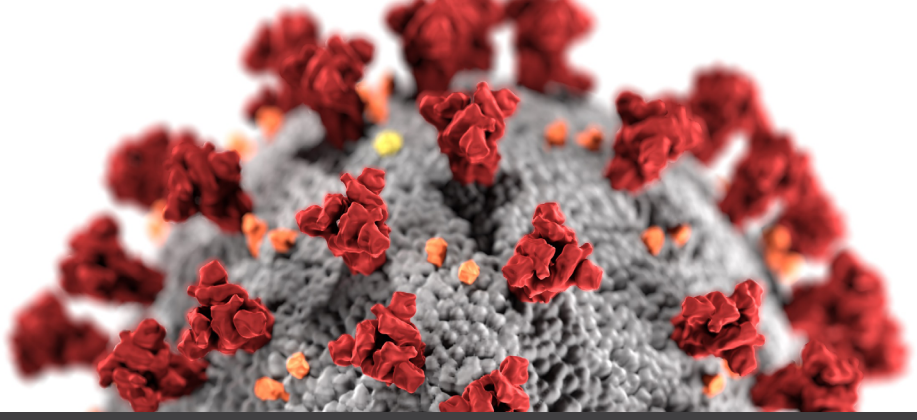


COVID-19 IMPACT ON DENTISTRY AND THE DENTAL WORKFORCE

REPORT PREPARED BY THE BOWEN CENTER FOR HEALTH WORKFORCE RESEARCH & POLICY ON BEHALF OF THE INDIANA DENTAL ASSOCIATION

MARCH 3RD, 2021

BACKGROUND

During the public health emergency prompted by COVID-19, Governor Holcomb issued an Executive Order[1] which shut down non-essential businesses in Indiana. At that time, dental offices were specifically outlined as an essential business under "Healthcare and Public Health Operations." However, as the epidemic worsened and limited personal protective equipment (PPE) was available, a few weeks later Governor Holcomb released a follow-up executive order[2] which directed dental offices to cancel or postpone elective or non-urgent procedures that could be delayed without undue risk to the current or future health of the patient. This directive had a direct and substantial impact to dentistry.

In compliance with state orders and in an effort to support the state and national response to COVID-19 by conserving PPE, many dental offices closed and discontinued all (but urgent/emergent) services for a period of approximately 4 weeks, until non-urgent and elective procedures were permitted to continue on April 24th, 2020. The reopening of dental offices for non-urgent and elective procedures was dependent upon the availability of PPE and implementation of policies and procedures to ensure the health and safety of personnel and patients.[3]

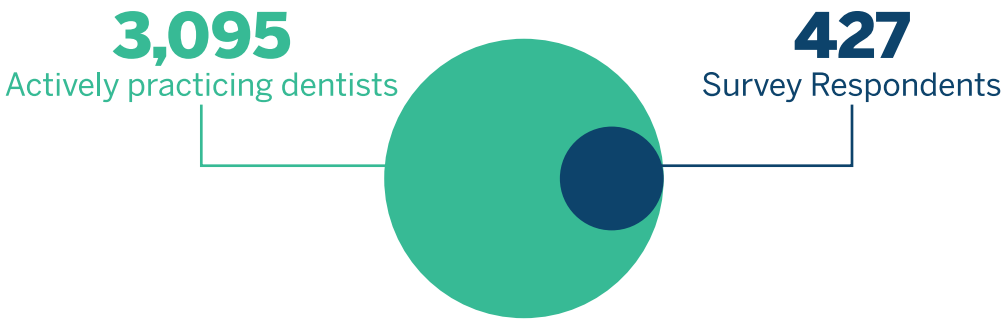
Since April 2020, the American Dental Association (ADA) has been continually assessing the economic impact COVID-19 has had on dental practices at the national level[4] through surveys administered to a panel of dentists. Although the information reported by ADA is helpful to gauge the national landscape, there is insufficient information to draw conclusions at the state level.[5] Additionally, with the exception of information on the ability to pay dental office staff, no information is reported on the impact COVID-19 has had on the workforce characteristics of dental practices.

MEASURING THE IMPACT OF COVID-19 ON DENTISTRY AND THE DENTAL WORKFORCE

In order to evaluate the impact that the COVID-19 pandemic has had on dental practices in Indiana and to inform future planning, the Indiana Dental Association released a survey to its membership in July of 2020. The survey was constructed to gather both quantitative and qualitative information on the operational and employment characteristics of Indiana dental practices. The survey was administered electronically through SurveyMonkey. A link to the survey was emailed 3,093 member and non-member dentists. Practices responded over the course of the subsequent 4 weeks. This brief presents key findings from the IDA survey.

WHO RESPONDED TO THE SURVEY?

- 427 dentists responded to the survey and were included in the survey summary, representing 68 of Indiana's counties. The dentist respondents were similar to the overall Indiana dentist workforce in terms of demographics, geography, rurality, practice specialty, and setting type.
  - How does this compare to the total dental workforce? Indiana has 3,095 actively practicing dentists serving 90 of Indiana's 92 counties.



1 https://www.in.gov/gov/files/Executive_Order_20-08_Stay_at_Home.pdf
2 https://www.in.gov/gov/files/Executive-Order-20-13-Medical-Surge.pdf
3 https://www.in.gov/gov/files/20200424155508020.pdf
4 American Dental Association. COVID-19 Economic Impact on Dental Practices. Available at: https://www.ada.org/en/science-research/health-policy-institute/covid-19-dentists-economic-impact
5 American Dental Association. COVID-19's Impact on the Dental Care Sector – state comparison. Available at: https://www.ada.org/en/science-research/health-policy-institute/covid-19-dentists-economic-impact/survey-results

WHO IS THE DENTAL WORKFORCE?

The dental workforce staffing explored in this brief includes:

- **Dental Hygienists** (professionals with an associate degree or higher and a license from the Indiana State Board of Dentistry to practice dental hygiene)
- **Dental Assistants** (professionals who can provide caries prevention and coronal polishing services if they have received training from an accredited dental assisting program or have been employed in a dental practice for at least 1 year[1]). There is no state license for dental assistants. Some dental assistants may pursue an Indiana Dental Radiography license[2] (under the Indiana Department of Health), but it is not required to be considered a dental assistant in the state of Indiana. Although there is no formal distinction between levels of dental assistants in statute or rules, Indiana dentists commonly categorize dental assistants in two tiers:
  - **Non-Expanded Function Dental Assistants (Non-EFDAs)**: Individuals who have met the training criteria to be considered dental assistants (on-the-job training for 1 year in a dental office or completing an accredited program). These individuals can provide the basic caries prevention and coronal polishing services outlined in Indiana Administrative Code.
  - **Expanded Function Dental Assistants (EFDAs)**: Dentists utilize EFDAs to place restorative materials, carve and finish as needed, as well as provide additional services under direct dentist supervision, and as delegated by the dentist. Although not required to be considered an EFDA, some dental assistants may pursue continuing education in a program centered on restorative procedures.

	Education/Training	Occupational Regulation	Practice
Non-Expanded Function Dental Assistants (Non-EFDAs)	on-the-job training for 1 year in a dental office or an accredited program	May hold a dental radiography license, otherwise no state license.	basic caries prevention and coronal polishing services (828 IAC 6-1)
Expanded Function Dental Assistants (EFDAs)	on-the-job training for 1 year in a dental office or an accredited program, may pursue continuing education in a program centered on restorative procedures	May hold a dental radiography license, otherwise no state license.	Dentists utilize EFDAs to place restorative materials, carve and finish as needed, as well as provide additional services under direct dentist supervision, and as delegated by the dentist.
Dental Hygienist	Associate degree or higher in dental hygiene	License	"removes calcific deposits or accretions from the surfaces of human teeth or cleans or polishes such teeth; applies and uses within the patient's mouth such antiseptic sprays, washes, or medicaments for the control or prevention of dental caries as his or her employer dentist may direct; treats gum disease, uses impressions and x-ray photographs for treatment purposes; or administers local dental anesthetics or nitrous oxide" (IC 25-13-1-11)

1 Per 828 Indiana Administrative Code Article 6. Available at: http://www.in.gov/legislative/iac/T08280/A00060.PDF?
2 Information about the dental radiography license is available at: https://www.in.gov/isdh/23279.htm

EFFECT OF COVID-19 ON THE DENTAL WORKFORCE

based on data collected by Indiana Dental Association in July 2020

LOW CAPACITY

60.0%
of dentists reported that their office is still not operating at full staffing capacity.

LOSS OF INCOME

- staffing challenges associated with inability to meet demand
- patient fear resulting in reduced demand
- new clinic protocols resulting in lower productivity

PPE AVAILABILITY

High cost associated with securing sufficient PPE

SHORT STAFFED

37.0% **of dentists** report that some of their staff quit or retired.

The top cited negative impact that staffing challenges have on dental practices include: offices not being able to schedule as many treatments, and the office failing to run smoothly.

Many dentists report having trouble filling positions:

- **33.0%** Dental Hygiene
- **25.4%** EFDA
- **23.6%** non-EFDA
- **17.6%** Office Staff

Top obstacles to finding dental staff:

Fear of returning to work

Competition for qualified staff

Unemployment benefits

EARLY RETIREMENT

25 dentists

have reported planning to sell their practice or retire early

(5.8% of the survey sample)

MOST owned a solo practice

FOUR practice in rural counties with few other dentists in the area to serve that community.

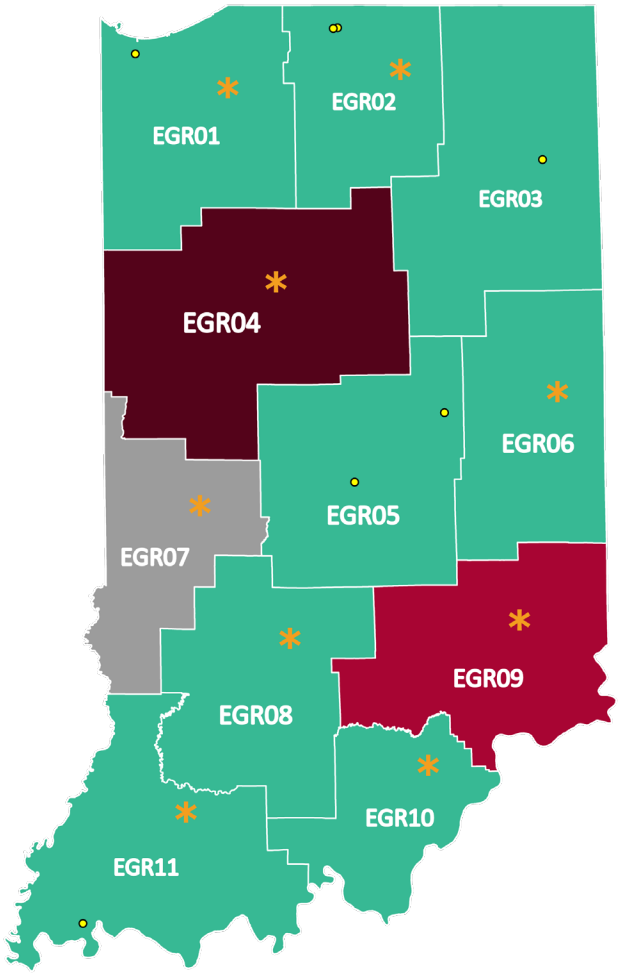
EXAMINING THE STATE OF DENTAL OFFICE STAFFING PRIOR TO THE PANDEMIC

Examining the impact of COVID-19 on dental office staffing was the primary outcome of interest for the IDA survey; however, data collected in the survey provide insight into dental office staffing prior to the pandemic. As a part of the IDA workforce survey, dentists were asked "Prior to the COVID-19 outbreak, how many [occupation type] did you employ?" and "Ideally, how many [occupation type] would you like to have employed at your practice?" for each occupation type. A comparison of dentists reported pre-pandemic staffing to their ideal staffing is helpful to understand what shortages may have been present before the pandemic hit. In order to examine this, responses to both questions (pre-pandemic staffing and ideal staffing levels) were aggregated at the regional level (Economic Growth Region, EGR) and are reported on the subsequent maps. Dentists were assigned to an EGR based on their primary practice address on their 2020 dental license renewal survey. It is important to note that the response rate to the questions regarding specific staff counts (ideal vs. pre-pandemic) varied. Therefore, while the following maps provide context to discussions regarding the existence of workforce shortages that preceded the pandemic, they should not be interpreted as absolutes.

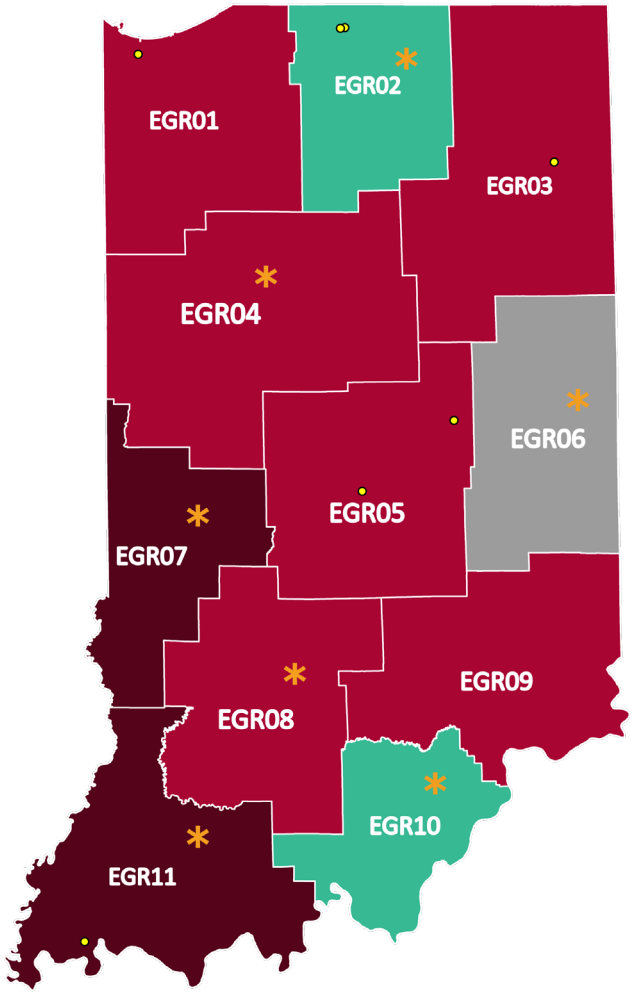
DENTAL HYGIENE STAFFING: PRE-PANDEMIC STAFFING COMPARED TO IDEAL

based on data collected by Indiana Dental Association in July 2020

Part Time Dental Hygenists



Full Time Dental Hygenists



Calculated Mean Difference of Pre-Pandemic Staffing Compared to Ideal Staffing

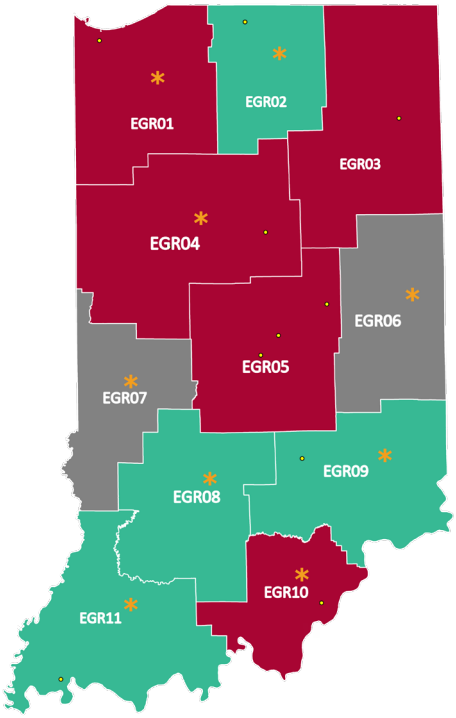
- Staffing is at or above ideal levels
- Understaffed by ≥ 1 individual
- Understaffed < 1 individual
- No Reported Survey Responses
- Dental Hygiene Training Programs
- * represents low response rate of less than or equal to 5 individuals. We advise to use caution when reviewing the results of low response rates.

Source: Data collected from Indiana Dental Association members during a survey distributed in July 2020; Dental hygiene training program locations obtained from the Commission on Dental Accreditation at: https://www.ada.org/en/coda/find-a-program/search-dental-programs#t=us&sort=%40codastatecitysort%20ascending

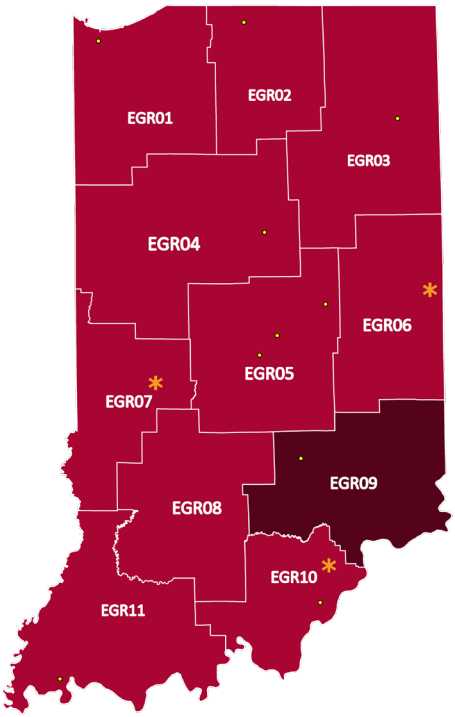
DENTAL ASSISTANT: PRE-PANDEMIC STAFFING COMPARED TO IDEAL

based on data collected by Indiana Dental Association in July 2020

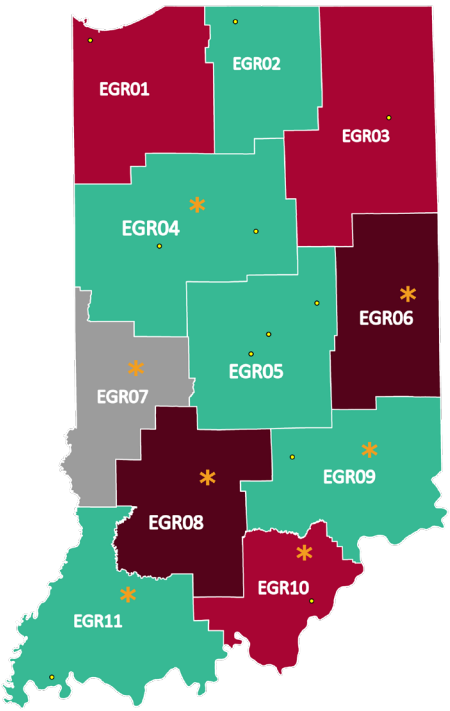
Part Time EFDAs



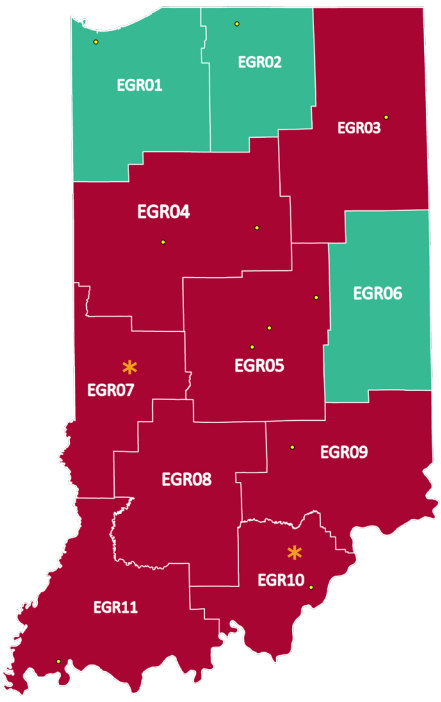
Full Time EFDAs



Part Time Non-EFDAs



Full Time Non-EFDAs



Calculated Mean Difference of Pre-Pandemic Staffing Compared to Ideal Staffing

- Staffing is at or above ideal levels
- Understaffed < 1 individual
- Understaffed by ≥ 1 individual
- No Reported Survey Responses
- ✱ represents low response rate of less than or equal to 5 individuals. We advise to use caution when reviewing the results of low response rates.
- ○ Dental Assistant Training Programs

Source: Data collected from Indiana Dental Association members during a survey distributed in July 2020; Dental hygiene training program locations obtained from the Commission on Dental Accreditation at: https://www.ada.org/en/coda/find-a-program/search-dental-programs#t=us&sort=%40codastatecitysort%20ascending

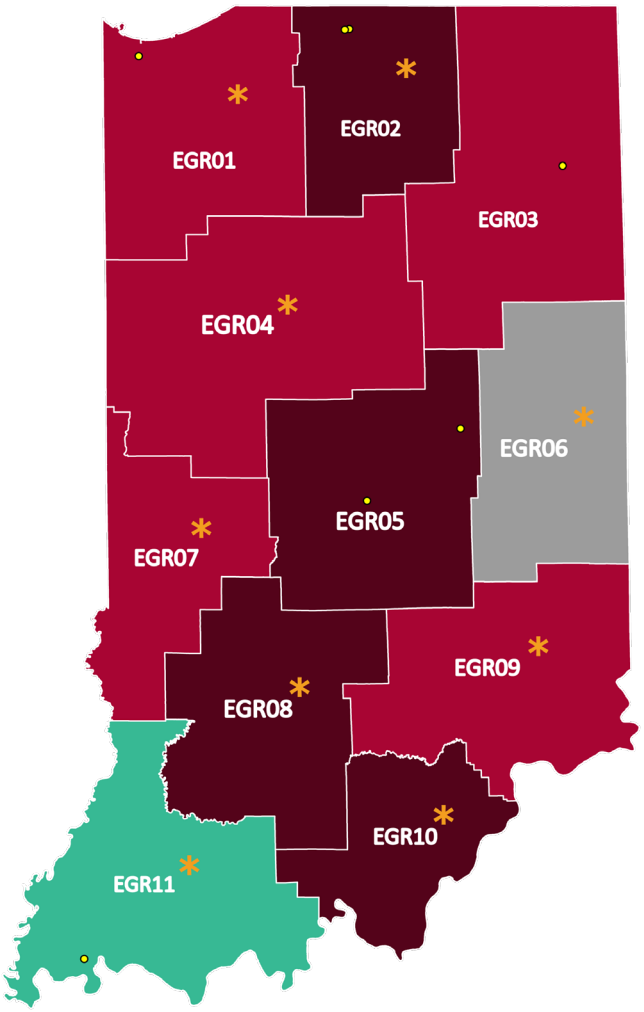
EXAMINING GEOGRAPHIC IMPACT OF COVID-19 ON DENTAL OFFICE STAFFING

In addition to asking dentists about their staffing prior to the pandemic and ideal staffing (as of the month the survey was distributed, July 2020), dentists were also asked about mid-pandemic (as of July 2020) staffing levels for each occupation ("As of today (July 2020), how many [occupation type] do you employ?"). A comparison of pre-pandemic staffing and mid-pandemic staffing is helpful to quantify and examine the direct impact COVID-19 has had on dental office staffing. Responses to both questions (pre-pandemic and mid-pandemic staffing levels) were aggregated at the regional level (Economic Growth Region, EGR) and are reported on the subsequent maps. Dentists were assigned to an EGR based on their primary practice address on their 2020 dental license renewal survey. It is important to note that the response rate to the questions regarding specific staff counts (mid-pandemic vs. pre-pandemic) varied. Therefore, while the following maps provide context to discussions regarding the existence of workforce shortages that preceded the pandemic, they should not be interpreted as absolutes.

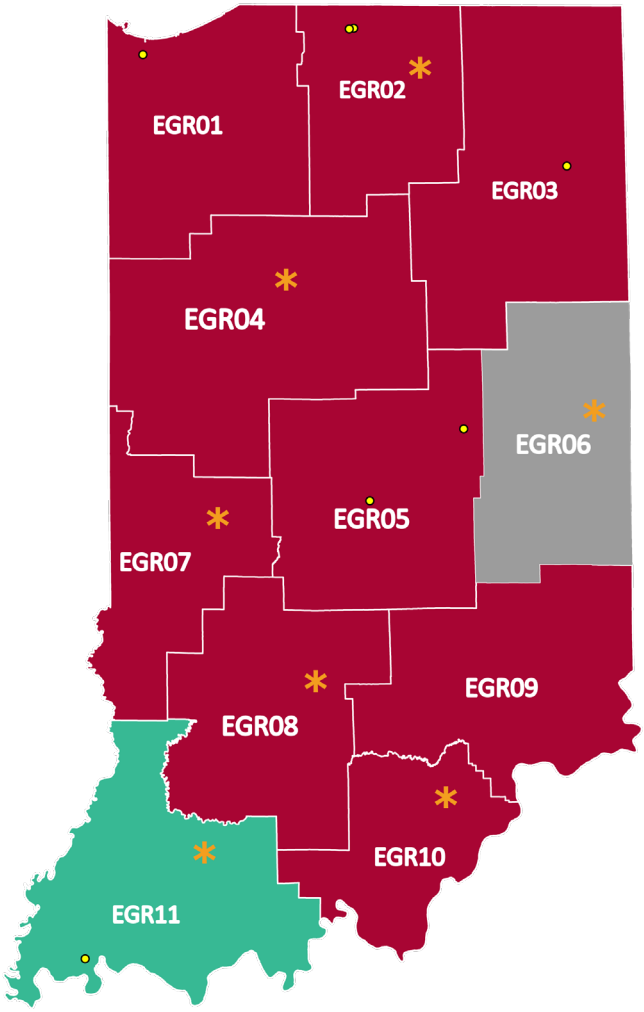
DENTAL HYGIENE STAFFING: PRE-PANDEMIC STAFFING COMPARED TO JULY 2020

based on data collected by Indiana Dental Association in July 2020

Part Time Dental Hygenists



Full Time Dental Hygenists



Calculated Mean Difference of Pre-Pandemic Staffing Compared to July 2020

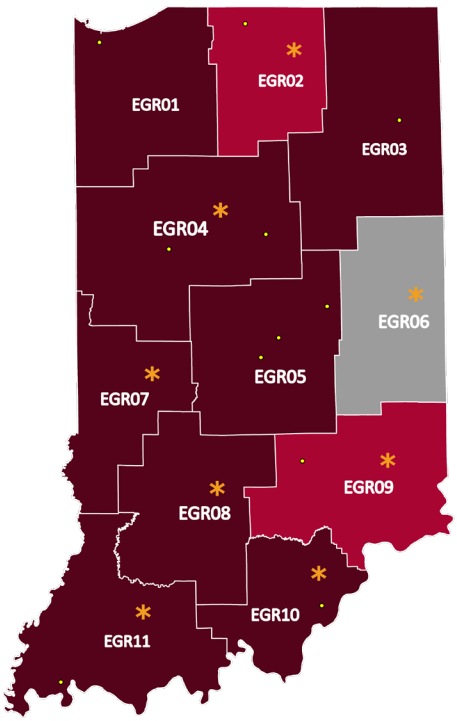
- Staffing is at or above pre-pandemic levels
- Currently understaffed < 1 individual
- Dental Hygiene Training Programs
- Currently understaffed by greater than 1 individual
- No Reported Survey Responses
- * represents low response rate of less than or equal to 5 individuals. We advise to use caution when reviewing the results of low response rates.

Source: Data collected from Indiana Dental Association members during a survey distributed in July 2020; Dental hygiene training program locations obtained from the Commission on Dental Accreditation at: https://www.ada.org/en/coda/find-a-program/search-dental-programs#t=us&sort=%40codastatecitysort%20ascending

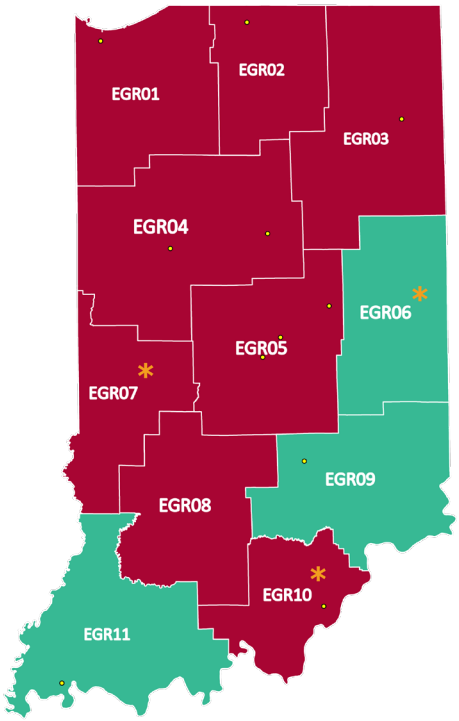
DENTAL ASSISTANT: PRE-PANDEMIC STAFFING COMPARED TO JULY 2020

based on data collected by Indiana Dental Association in July 2020

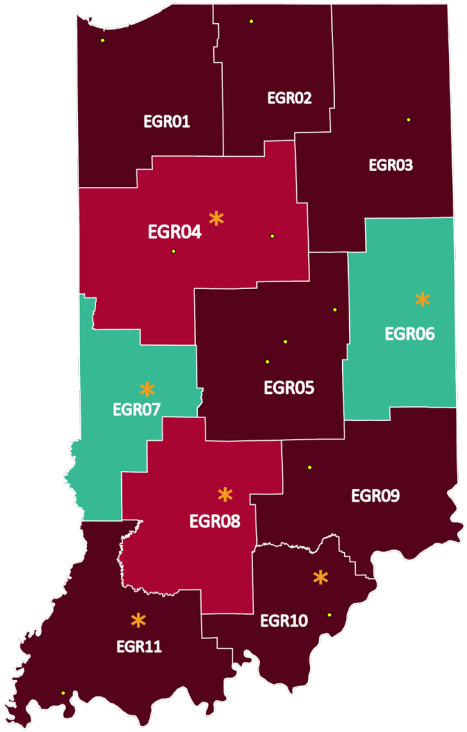
Part Time EFDAs



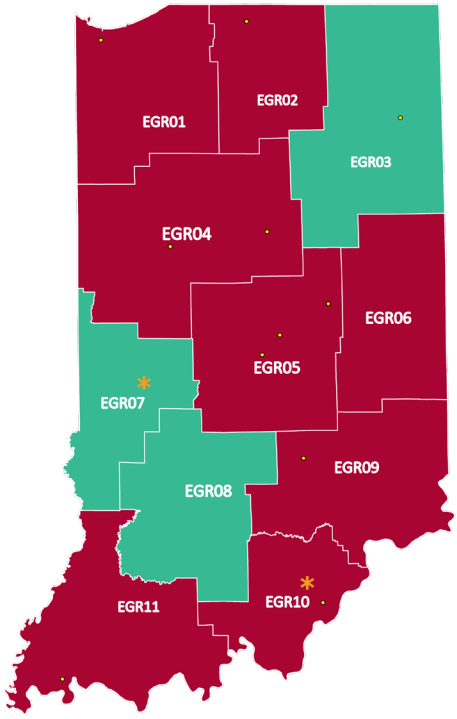
Full Time EFDAs



Part Time Non-EFDAs



Full Time Non-EFDAs



Calculated Mean Difference of Pre-Pandemic Staffing Compared to July 2020

- Staffing is at or above pre-pandemic levels
- Currently understaffed < 1 individual
- Dental Assistant Training Programs
- Currently understaffed by greater than 1 individual
- No Reported Survey Responses
- * represents low response rate of less than or equal to 5 individuals. We advise to use caution when reviewing the results of low response rates.

Source: Data collected from Indiana Dental Association members during a survey distributed in July 2020; Dental hygiene training program locations obtained from the Commission on Dental Accreditation at: https://www.ada.org/en/coda/find-a-program/search-dental-programs#t=us&sort=%40codastatecitysort%20ascending

IMPLICATIONS

At the time of the IDA survey, many dentists and dental offices were still suffering from the short- and long-term impacts of the COVID-19 pandemic, including **acute and sustained financial losses.** Additionally, dental offices reported exacerbations of existing workforce shortages. Most dentists reported understaffing for all types of professionals: dental hygienists, EFDAs, non-EFDAs, and office staff. However, it is **important to note that dental offices reported experiencing staffing shortages prior to the pandemic** (the staffing they reported prior to the pandemic was still less than reported ideal staffing scenarios). This finding points to a **widespread and persistent state of oral health workforce shortage and calls for workforce development initiatives** to balance supply and demand ratios.

In an effort to reach the state of "ideal" staffing for dental office staff of all levels, targeted workforce development initiatives are necessary. Related workforce development implications are described below:

- Non-profession specific:
  - Most dental practices report a shortage of dental office staff. Qualitative feedback from dentists indicate that there is a generalized undersupply of some staff (primarily dental hygienists) and an acute shortage of other staff due to COVID-related market factors (primarily dental assistants). Currently, no formal forum exists whereby employers (in this case, dentists) can report demand and pipeline stakeholders (education and training programs) can adjust the pipeline in response. **A formal mechanism for oral health workforce supply/demand discussions and programmatic responses could be created to facilitate a more dynamic oral health workforce that meets the oral health needs of Indiana's citizens and the staffing needs of Indiana's employers.**
- Dental assistants (both EFDAs and Non-EFDAs):
  - Currently, no bridge program exists in the State of Indiana from dental assisting to dental hygiene. As such, currently dental assistants in Indiana receive no credit toward completion of a dental hygiene program. Models exist for bridge program development, and such models have been implemented in other states. **The State of Indiana should consider development of a bridge program from dental assisting to dental hygiene to: 1) facilitate both strategic grow-your-own dental office recruitment and 2) promote individual career advancement from a direct entry occupation (dental assisting) to a licensed profession (dental hygiene).**
- Dental Hygiene:
  - It is unclear the extent to which partnerships exist between employers and dental hygiene training programs. However, such partnerships could provide valuable clinical training experience to dental hygiene students, and provide a potential recruitment pool for dentist employers after the student has completed their program. Where applicable, **dental offices should explore opportunities for partnership with local academic training programs (ex: Ivy Tech) to offer clinical placements as a recruitment mechanism.**